viously presented in connection with a paper on this topic. In the majority of these there is no record of the presence of any tumor.

ON PECULIAR PARASITIC ORGANISMS IN THE EPITHELIAL CELLS OF CARCINOMA.

THOMA (*Fortschr. d. Med.*, June, 1889) says that for some time he has been studying peculiar, small, cell-like structures, which occur very frequently in the epithelial nuclei of carcinoma. They exhibit such a contrast in form, size, and arrangement to the cell-forms usually found in man, that they must be considered to be of a parasitic nature. These parasites appear as single bodies of from 4 to 15 μ in diameter, becoming more apparent when stained by various dyes, as safranin, alum carmine, hæmatoxylin, and eosin. They consist of protoplasm and nucleus, and sometimes of a nucleolus as well. Their form is irregularly round, or oftener oval; or sometimes whetstone-shaped, or of the form of a ship (resembling navicella). They are quite strongly refractive. It is a remarkable fact that these bodies lie singly or in groups of five or six in the epithelial nuclei. These latter then lose their ability to take the stain, and become hollow, bladder-shaped bodies, containing only the parasites and here and there a little granular matter. In other cases, however, a cavity forms close to the cell-nucleus, and in this the unit cellular bodies are situated.

In the hollows in the cell-nucleus are also found spheres of chromatin, and sometimes granular or homogeneous, highly refractive, spherical bodies, unstained by nuclear dyes.

The author intends in the future to give a more extended description of these peculiar forms, which he has found in carcinoma of the rectum, stomach, and breast. He would, in concluding, only call attention to the fact that similar parasites have appeared to produce epithelial growths in birds, and that in the intestinal epithelium of the salamander have been discovered parasites likewise allied to the coccidia.

SURGERY.

UNDER THE CHARGE OF

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DRY OPERATIONS.

DR. LANDERER (*Archiv für klinische Chirurgie*, vol. xxxix., 1889) says that now that the great problems of antisepsis have been solved, it remains chiefly to improve in smaller matters our treatment of wounds, and to endeavor not only to cure all patients, but to do so *tuto, cito et jucunde*. Influenced by the fear of carbolic, iodoform, and sublimate poisoning in antisepsis, and by the difficulties of procuring sterilized fluids, etc., in asepsis, he has for a long time operated without bringing a drop of fluid of any kind in contact with the wound. The instruments are boiled and kept in a weak carbolic solution. The hands and the field of operation are disinfected by a modification of Fürbringer's method. As the wound is made it is dried with pieces of sublimate gauze and filled with wads of the same material. The larger vessels are tied. Angles and pockets of the wound are united by buried stitches. The wound is entirely closed, no provision for drainage and no opening for that purpose being left. The dressings are applied with moderate pressure. The results of the method, according to his experience in ninety major operations of all sorts, are:

1. All wetting and cooling of the patient are avoided.
2. The loss of blood is reduced to the minimum.
3. There is little or no danger of intoxication from absorption of the antiseptics.
4. The operation is shortened, as there is so much less time spent in arresting hemorrhage.
5. Healing is quicker and safer.
6. The antiseptic details are easier and more manageable.
7. The hands of the operator are not affected by contact with powerful antiseptics.

SUBCUTANEOUS MERCURIAL INJECTIONS IN SYPHILIS.

PROFESSOR LELOIR and M. A. TAVERNIER record (*Journal des Maladies Cutanées et Syphilitiques*, August and September, 1889) the results of their experience with hypodermatic injection of, *a*, calomel and oil of vaseline, 1 to 12 (875 injections); *b*, yellow oxide and oil of vaseline, 1 to 12 (642 injections), and "gray oil," purified mercury, 4 parts, ethereal tincture of benzoin, 1 part, oil of vaseline, 8 parts (56 injections). The retro-trochanteric region was used; one-half of a syringeful (Pravaz) was used for the first two, one-third for the last formula. The intervals were eight or nine days. They note the following complications observed in the series of 1573 injections: *a*, local pains, sometimes radiating, preventing movement, lasting from one to nine days; *b*, paresis of the lower limbs; *c*, vertigo, headache; *d*, occurrence of buccal mucous patches four or five days after the injection; *e*, local mercurial irritation around the point of injection; *f*, mercurial stomatitis; *g*, diarrhœa, simple or bloody; *h*, cutaneous swellings, hard, or sometimes vesicular, not going on to suppuration.

As to the value of these injections they come to these conclusions: 1. The treatment of syphilis by subcutaneous injections should be reserved for the erythematous eruptions and consecutive syphilides of the tegumentary surface. 2. The method should be employed when it is desired to make these eruptions disappear with extreme rapidity. 3. It is especially applicable to hospital patients—*i. e.*, to those who can be kept in bed. 4. It has but a slight action on the syphilides of mucous surfaces. 5. It has no influence in preventing early relapses. 6. In many cases it fails when inunctions succeed. 7. It should not be employed in cerebral, spinal, or visceral syphilis, nor in the syphilis of pregnant women, nor in infantile syphilis.

Its only advantage appears to be its rapidity of action.

SHOULD SYPHILITIC PHYSICIANS CONTINUE THEIR PROFESSIONAL WORK?

PROFESSOR A. NEISSER, of Breslau, discusses (*Centralblatt für Chirurgie*, September 28, 1889) the above subject at some length, especially in reference to surgeons and obstetricians. He believes that the answer depends upon a number of factors:

1. The age or stage of the syphilis. The younger the disease, the greater the power of transmission. There is no proof of the existence of any infective quality during the late or tertiary stage.
2. Upon the character of the treatment, which, if careful and continuous, reduces both the chances of infection during the early period, and at the same time shortens that period materially.
3. As to details, the existence of a syphilide on the hand is an imperative contra-indication to professional activity, unless it is possible, in some safe mechanical way, absolutely to isolate the diseased region.
4. Infection by blood through accidental wounds or abrasion of the fingers of the operator is, of course, possible, but it is highly improbable that this will occur through microscopic cracks or solutions of continuity, and it is very unlikely to happen after the first year of the disease.
5. Infection through non-specific skin troubles in the hands of the syphilitic may occur, as from pustules, eczema, fissures, etc.
6. As to all these matters Professor Neisser draws a sharp line between possibility and probability, and is strongly inclined to think that with care as to the fingers, the use of protectives and of disinfectants, etc., the medical man who has been so unfortunate as to contract syphilis may continue to practise his profession with safety to his patients. This conclusion applies with more force to the surgeon than to the obstetrician, whose patients are in greater danger.

A CASE OF LORETA'S OPERATION.

DR. T. W. HUNTINGTON (*The Occidental Medical Times*, September, 1889) reports the case of a man, æt. twenty-three, who, after a long-continued history of gastric ulcer, developed the symptoms of pyloric stenosis. The stomach was opened, the pylorus found and dilated, first with a small uterine dilator, then with a Bigelow's sinus dilator, and finally with the fingers. He recovered uninterruptedly, and two months later was eating solid food without vomiting or distress.

As to the indications for operation in this class of cases, it would seem that positiveness in the diagnosis of cicatricial or non-malignant stenosis of the pylorus is far from easy of attainment. There are, however, three factors, which, if present simultaneously, point strongly to the existence of this condition: First, a well-authenticated history of chronic gastric or duodenal ulcer; second, persistent vomiting of partly digested food, or of biliary fluid; third, marked dilatation of the stomach. Epigastric pain, disgust for food of any sort, and chronic constipation, together with various phenomena depending upon functional derangement, are of value only as confirmatory symptoms.

According to Treves, of London, this operation has been done frequently on the continent of Europe, Loreta being the most prominent operator. Up to May, 1889, this method had been resorted to but once in England, and that case was treated by Treves himself. Drs. Kinnicut and Bull, of New York, have recently published a table of twenty cases by various operators. To this table are added Treves's case and this of Dr. Huntington, making twenty-two in all. Of these, fourteen are reported cured, one improved, and seven dead. The causes of death in the fatal cases were as follows: Cancer of the stomach, hemorrhage into the stomach after operation, renal disease, exhaustion (on the eighteenth day), tetanus, and collapse. In one case the cause of death is not given.

LAPAROTOMY IN CHRONIC PERITONITIS.

L. PROCHOWNICK (*Deutsche medizinische Wochenschrift*, No. 24, 1889) is of the opinion that much of the success claimed for operative interference in tubercular peritonitis is attributable to errors of diagnosis, and that the same also applies to other peritoneal inflammations. Four cases out of nine upon which he has recently operated were examples of chronic peritonitis, and had their origin in the pelvic tissues. No signs of uterine, tubal, or ovarian disease were present, and gonorrhœal infection could be excluded. The cases were all characterized by adhesions of the omentum to the pelvic organs. These omental adhesions occur in many cases of acute pelvic peritonitis, and gave rise to intestinal and gastric symptoms by interfering with the free movements of the omentum.

These symptoms consist of nausea, vomiting, gastralgia, flatulence, abdominal distention, and, if the omentum is adherent to the pelvic viscera, rectal and vesical tenesmus, constipation alternating with diarrhœa. Adhesion of the omentum to the generative organs gives only few symptoms, nausea and pain in the stomach after exertion, menstruation attended with cardialgia, pains radiating from the umbilicus to the labia.

If this symptomatology be well studied, the diagnosis of omental adhesion is as readily made as that of tubal or ovarian trouble.

Adhesion of the omentum to the parietal peritoneum is usually present, but gives no symptoms unless there be a complicating hernia.

The writer concludes that in chronic peritonitis, especially where extensive omental adhesions exist, and other measures have proved unavoidable, laparotomy is indicated. But the operator should be content with removing the peritoneal lesions, and leave the uterus and its appendages, unless they be markedly diseased.

The importance of chronic peritonitis in producing many of the symptoms in cases subjected to castration, has not been as yet recognized. Schroeder and Martin have successfully employed conservative treatment, and the latter regards the accompanying chronic peritonitis as the causative factor in the majority of cases of chronic oöphoritis and disease of the tubes. Other observers have also called attention to the frequency with which chronic peritoneal and omental adhesions are found in secondary laparotomies, and to their importance in the symptomatology of the case.

This shows that we should distinguish the symptoms attributable to chronic peritonitis from those due to disease of the other organs, and try to prevent at the first operation the development of subsequent peritoneal trouble (adhesions). This can be accomplished by loosening adhesions, avoiding strong antiseptic and astringent fluids in the abdominal cavity, removal of the contused omentum, strict toilet of the peritoneum, and the avoidance of opiates before and after the operation.—*The Annals of Surgery,* October, 1889.

THE USE OF INJECTIONS IN INTUSSUSCEPTION.

DR. W. E. FOREST calls attention (*Medical Record,* October 5, 1889) to the necessity, in using injections of either gas or liquid in cases of intestinal obstruction, of knowing, first, how much force the intestine will stand without danger of rupture; second, how much force one is using at any given moment. His experiments seem to show that the limit of safety in adults is fifteen pounds to the square inch; in children, six to eight pounds to the square inch. With the Bergeon apparatus, the pressure cannot be measured and regulated accurately. With the Davidson syringe, the exact pressure is equally indeterminate, while it is possible to produce a pressure of thirty to seventy pounds to the square inch. Dr. Forest continues as follows:

"In order to measure the pressure used in an injection, it is only necessary to remember that one atmosphere, or fifteen pounds to the square inch, supports a column of water thirty-three feet high; hence a column of water thirty-three feet high must make a pressure of fifteen pounds upon every square inch of surface at the base of the column. Now, if this column of water be held in a rubber tube of ordinary size, after allowing for friction of the water in the tube, it will be accurate enough to say that every two feet of the column represents a pressure of one pound to the square inch; hence a rubber tube six feet long, filled with water, and held vertical, will cause a pressure of three pounds to the square inch at its base; and a tube twelve feet long will exert a pressure of six pounds to the square inch at the base, and so on.

"Now, apply this principle to a case of intussusception in a child, for instance. The surgeon, instead of sending to the nearest city for a consultant and a Bergeon apparatus, goes to the drug store or hardware store and gets a rubber tube twelve to twenty feet in length. Into one end is inserted a funnel; into the other a nozzle of a Davison syringe. In order that the injected fluid may be retained, a shoulder may be made on the nozzle about one inch from the end, by winding a roller-bandage around. This shoulder will retain every drop of the injection when pressed against the sphincter. Now, a pitcher of warm salt water completes the apparatus, and the father of the child is the assistant surgeon.

"The patient is taken into the hall-way of the house, so that the requisite elevation may be gained, the child is etherized, the surgeon inserts the nozzle of the syringe, and holds it in the rectum with one hand, while with the other he manipulates the walls of the child's abdomen. The assistant pours the water into the funnel and slowly raises it, mounting the stairs at the time if necessary. When the funnel has been raised twelve feet above the level of the child's body, great care should be exercised, as the pressure is now about six pounds on every square inch of colon below the obstruction. It is seldom that a greater pressure than this will be needed to reduce a recent invagination. The pressure should be increased very slowly, as time is an important element in reducing an invagination. If in any case the pressure mentioned above does not bring about the end aimed at, the pressure may be increased up to ten pounds to the square inch."

The Radical Cure of Hernia.

Dr. George R. Fowler considers at some length (*Brooklyn Medical Journal*, November, 1889) the question of the present aspect of the radical cure of hernia, and comes to the following conclusions:

1. As to the selection of cases in which the radical cure is to be recommended, it may be said that the operation becomes one of necessity in all young persons with hernia, in the lower walks of life where existence depends upon some form of manual labor. Among these there always exists a demand for a snug or tightly fitting retentive apparatus; this alone will in the course of time so alter the anatomical conditions as to render it next to impossible to retain the hernia in position as well as increase the difficulties of a radical cure. Again, the expense and want of time to devote to personal needs prohibit most of this class from keeping themselves supplied with the most approved form of truss, and likewise from keeping the same in repair. Hence, there is always a temptation either to do without entirely, in ignorance of the dangers of such a course, or to place reliance upon an instrument which may be either inefficient or inapplicable for other reasons. On the other hand, among the better class, where ample means exist, and probably always will, to provide the best possible appliances and keep the same in an efficient condition; where the mental calibre of the patient is such as to grasp the situation and appreciate the dangers attending a careless disregard of instructions regarding the use of the truss, the operation may be regarded as one of convenience, and operative measures are to be instituted exactly as in the condition, analogous in this respect, of clubfoot.

If, in either of these classes, at any time it should transpire that the hernia cannot be retained without undue distress, or with ease and certainty, the radical cure, in view of the exceedingly favorable results obtained, is called for.

2. In all cases of strangulated hernia the operator owes it to himself, as well as to the patient, not to allow the latter to leave the operating table until the operation for radical cure has supplemented the necessary herniotomy.

3. The age of the patient need not be taken into account, providing the operative procedure selected be of a character suited to the requirements of the case.

4. With regard to the after-treatment, not less than six weeks in the recumbent position is to be considered essential, and no truss should be worn after the operation.

5. With these requisite conditions fulfilled it is fair to state to the patient, if he be a young person (under twenty-five years), that a cure may be assured; if he be an older person, still the chances are largely in his favor, and including the worst cases the proportion of cures averages at least fifty per cent.

The mortality, if individuals with chronic organic diseases or well-marked cachexia be eliminated, may be said to be next to nothing in proper hands.

AN UNFORTUNATE RESULT OF WHITEHEAD'S OPERATION FOR HEMORRHOIDS.

DR. CHARLES B. KELSEY, under the above heading, reports (*N. Y. Medical Journal*, October 5, 1889) the following case:

A woman, aged thirty-five, was operated upon eight months since in one of our city hospitals for hemorrhoids, by Whitehead's method. On examination, the anus presents a circle of excoriated mucous membrane, ending suddenly in healthy skin. The mucous membrane, which has been drawn outside of the rectum and united to healthy skin, is an inch broad for one-half the circumference of the anus and half an inch broad for the remainder. In other words, the circular incision in the operation was entirely outside of the margin of the anus, and the mucous membrane has been drawn down to it, changing a muco-cutaneous opening into one covered by mucous membrane. The patient's condition is a miserable one.

The plan of treatment advised was to dissect this mucous membrane loose, cut it off, bring the skin up as near the verge of the anus as possible, and allow the wound to heal by granulation. A stricture of the anus would, of course, be the natural consequence, but one which Dr. Kelsey thinks could be managed and would be better than the extensive ulceration which is sure to follow the excoriation now begun.

[In "Whitehead's operation," properly so called, the circular incision should be made at Hilton's "white line"—*i. e.*, at the line of junction of skin and mucous membrane. It does not seem clear that, in this case, the operator followed this direction, which is explicitly given by Mr. Whitehead. If he did not, it is unjust to saddle the method, now on trial before the profession, with a failure not properly belonging to it.—ED.]

LITHOLAPAXY IN CHILDREN.

DR. DUDLEY P. ALLEN (*Journal of the American Medical Association*, Oct. 5, 1889) carefully considers the arguments for and against the crushing operation in children, and comes to the following conclusions: Beyond question, the operation of litholapaxy in children is one which must be recognized. It is particularly suited to medium and small-sized stones, and though median and lateral lithotomy are very successful in such cases, we believe litholapaxy will be equally so in skilled hands, and that, beside safety, it has the great advantage of absence of cutting, and of the filthy condition of the patient. Suffering is commonly very slight, and is confined to a few days, and it is not infrequent for patients to be up and around on the third or fourth day. Patients will not hesitate so long before the crushing as the cutting operation, and should the return of the stone be more frequent after crushing than after cutting—as is shown to be the case—a second operation will be more easily performed than the first, on account of the size of the urethra increasing with the age of the patient. The condition of the boy's bladder is certainly more likely to be favorable to litholapaxy than that of an adult. Our idea would be that large and hard stones should be removed by the suprapubic operation, especially if for any reason it is desirable to see the interior of the bladder. Medium and small stones are favorable for removal by litholapaxy, unless for some reason the urethra be smaller than normal. The operation of median lithotomy is a favorable one in cases with small stones, but an operator skilled in litholapaxy would do well to choose the latter. In cases of medium-sized stone, with an urethra not sufficiently large for the introduction of proper instruments for crushing, lateral lithotomy is indicated.

THE TREATMENT OF RETENTION OF URINE FROM PROSTATIC ENLARGEMENT.

MR. A. F. McGILL, of Leeds, in opening the discussion of the above subject at the last meeting of the British Medical Association (*British Medical Journal*, October 19, 1889), advanced the following propositions, supporting them by the histories of twenty-four cases occurring in his own practice and that of others. His remarks apply to the chronic, and not to the acute, form of retention. He asserts:

1. That prostatic enlargements which give rise to urinary symptoms are intravesical, and not rectal. . . . It has been long recognized that the severity of the symptoms in a case of hypertrophy of the prostate bears little or no relation to its apparent size as felt through the rectum, and it is also well known that a considerable number of men, aged fifty-five and upward, have prostates of an abnormally large size, though of these only a certain proportion—say fifty per cent.—suffer from urinary symptoms. This strange difference depends on the position at which the organ is enlarged.

Prostates of immense size, which project toward the rectum and perineum, cause no urinary trouble, while severe symptoms may supervene when the prostate on rectal examination is apparently of normal dimensions.

In the twenty-four tabulated cases there was one characteristic common to all—the enlarged prostate projected into the bladder. There are many varieties of the intra-vesical growth.

We find (*a*) a projecting middle lobe—pedunculated or sessile; (*b*) a middle lobe with lateral lobes, forming three distinct projections; (*c*) the lateral lobes alone; (*d*) a pedunculated growth springing from a lateral lobe; and (*e*) "a uniform circular projection surrounding the internal orifice of the urethra." This last variety, described by Brodie, has in recent years escaped notice; it is better seen *in situ* than in museum specimens, and is not of infrequent occurrence. It surrounds the urethra like a collar, and projects for a variable distance into the bladder.

2. That retention is caused by a valve-like action of the intra-vesical prostate, the urethral orifice being closed more or less completely by the contraction of the bladder on its contents. . . . When the bladder contracts on its contents, the contained fluid is forced on to the projecting prostate, and the urethral orifice is closed. The mechanism is the same—with one exception—whatever may be the variety of the enlargement. Whether there is a middle lobe, or lateral lobe, or a collar, the same valve-action occurs; and the more violent the contraction the more complete is the action of the valve.

3. That in many cases self-catheterism is the only treatment required.

4. That when the catheter treatment fails, or is unavailable, more radical measures are necessary. He admits that he is unable to prove this assertion, but restates his belief that a large proportion of the cases treated by the catheter sooner or later break down—in other words, that eventually the prostatic enlargement is the cause of death.

The breakdown may come soon, or it may come late, but in many cases it ultimately supervenes. The urine becomes thick and ammoniacal; the desire to micturate is continuous; the passage of a catheter relieves but for a few minutes; the suffering and discomfort are constant—day and night; life becomes a burden, and death a happy release. The greatest care cannot prevent this result, and the grossest carelessness does not always induce it.

5. That the treatment, to be effective, should (*a*) for a time thoroughly drain the bladder, and (*b*) permanently remove the cause of the obstruction. It is now some ten or twelve years since perineal drainage was introduced for the relief of cystitis in patients suffering from prostatic breakdown. The relief obtained in this way has been most marked, and the practice is well recognized and established. As soon as efficient drainage is effected the bladder ceases to be a receptacle; urine sweet from the kidneys flows through it; putrefactive changes are prevented, and acute symptoms cease. The relief, however, is only temporary.

6. That these two indications (of drainage and permanent removal of obstruction) are best fulfilled by a suprapubic rather than by a urethral or perineal operation. There are three ways in which it is possible to perform a radical operation for the removal of prostatic obstruction—the urethral, the perineal, and the suprapubic. Of these the urethral appears to be in every way unsatisfactory. In comparing the perineal with the suprapubic operation, he prefers the latter for the following reasons:

1. It is more generally applicable.

2. It can be performed with greater precision, and completed with greater certainty.

3. It insures complete and most efficient drainage. It may possibly be argued by some that the position of the suprapubic wound will prevent drainage, and that the urine will naturally escape more readily through a dependent perineal wound than through one above the pubes. Experience shows that this is not so. Drainage takes place more easily through the soft abdominal than through the hard perineal tissues.

4. It is equally safe. While making this assertion, he thinks it right to draw attention to the fact that it is merely an opinion and does not rest on a statistical foundation; there being no statistics available for the purpose.

The following special points as to the *technique* of suprapubic prostatectomy are founded on an experience of thirty-seven suprapubic cystotomies:

1. The quantity of water injected into the rectal bag, especially in cases where the prostate is abnormally hard, should be smaller than is usually recommended. Each case must be decided on its merits, but six or ten ounces are usually sufficient.

2. The bladder should be irrigated till the antiseptic solution used is perfectly clear. The quantity left in the bladder varies much, from ten to twenty or more ounces. The hand placed on the hypogastrium will show when the distention is sufficient.

3. In cases where the bladder is contracted with thick non-distensible walls, it will usually be inadvisable to perform this operation.

4. It is better to leave a catheter in the bladder till its cavity is opened, as it is a guide that expedites the operation. Care must be taken not to hook the peritoneal fold (superior false ligament) into the wound with the point of the instrument.

5. The linea alba is best divided by incising it immediately above the symphysis, and then dividing upward on a director.

6. Care must be taken to secure the bladder before proceeding to remove the prostate. This is best done by inserting two sutures through each lip of the wound, and fastening it securely to the deeper part of the abdominal wall. When the operation is completed, a third suture passed through the lower angle of the wound is an additional security against urinary extravasation into the retropubic space.

7. The prostate should be removed as far as possible by enucleation with the finger, and not by cutting. The mucous membrane over the projecting portion having been snipped through, the rest of the operation is completed with the finger and forceps. In this way excessive hemorrhage is prevented. A pedunculated middle lobe can, however, be removed by cutting through its base. Hemorrhage is best arrested by irrigation with water so hot as to make it unpleasant for the hand.

8. A large tube should be inserted into the bladder, and the wound united above the tube by a deep and superficial row of sutures. The tube is to be removed in forty-eight hours.

9. The after-treatment consists in keeping the parts clean, and washing the bladder and the wound, in exceptional cases, with a boracic solution.

MR. EDWARD ATKINSON, who had been the operator in five of the twenty-four cases, strongly supported the conclusions of Mr. McGill. MR. JORDAN LLOYD had operated in three cases, MR. BENNETT MAY in four cases, MR. JESSOP in four cases. They also, in the main, indorsed the above propositions, Mr. May dissenting from the statement that suprapubic operation insures the most efficient drainage.

PAPILLOMATOUS URETHRITIS.

DR. F. M. BRIGGS reports in detail (*Boston Medical and Surgical Journal*, October 24, 1889) a case which he originally thought to be one of stricture of large calibre, but later, by endoscopic examination, proved to be one of papilloma, the urethra being studded for nearly five inches with growths of this character. He removed them by Oberländer's method, which he describes as follows:

He uses cotton tampons. The cotton is twisted firmly on the ends of tampon-holders. Having introduced an endoscope to the seat of the growths, he passes down two tampons one after the other, partially withdraws the endoscope and presses the two tampon-holders well against each other. The penis is stretched out, and the tampons, by an up-and-down, slightly twisting motion, ought to catch and pull off the growths. The tampons are withdrawn one after the other, and some papillomata will be adhering to the cotton.

Fresh cotton is reintroduced to the same spots to remove the growths still there, and this is repeated at the various diseased points of the urethra, until as many growths as possible have been removed. One week later he examines again, and during this time many of the growths which were loosened by the tampons but were not removed, will have been carried out by the stream of urine. If any are left, he repeats his operation (which he calls "tampon-écrasement"), and, if necessary, does so a third time. In regard to these cotton tampons, his directions for making them are as follows: "In order to get a sure result, the tampons must have a definite size, and indeed, such that in the movements among the condylomatous masses they take hold—that is, they can be passed through only with distinct pressure. They ought not to go through too easily or one removes too little; nor should they pass through with too much difficulty, for then one has not room enough in the urethra for two tampons going side by side."

As regards after-treatment, he says, that if symptoms persist after all the growths are out, they are to be treated on the principles of treatment for chronic urethritis, by sounds or by topical applications.

Dr. Briggs sums up:

The symptoms are those of chronic irritation of the urethra. But an accurate diagnosis cannot be made by the symptoms alone. An endoscope must be used and the urethra thoroughly inspected. The prognosis is good; and, for treatment, the writer would recommend, as being both rapid and effective, the removal of the growths through an endoscope with a curette and cotton tampons, in the manner described above. If after-treatment is necessary, injections of permanganate of potash for several weeks. If this is not sufficient, then sounds or topical applications of nitrate of silver.

EXCISION OF THE ANKLE-JOINT.

Mr. Arthur Neve details (*Edinburgh Medical Journal* for October, 1889) a case of caries of the epiphysis of the fibula with secondary disease of the ankle-joint, which he approached by the following unusual method: A large posterior curved incision was made down the anterior surface of the fibula for the lower three inches, then back across the heel at the insertion of the tendo-Achillis, and again up the posterior aspect of the tibia for three inches. On the outer side the flap thus marked out was carried down to the bone, and at the back it included the tendo-Achillis, but on the inner side it was only cutaneous. The deeper structures on the inner side—tendons, vessels, and nerves—were dissected off the bone, and turned forward just as is done to certain structures behind the internal condyle of the humerus in excision of the elbow-joint: in the ankle with less difficulty. With the foot powerfully flexed, the posterior surface of the ankle-joint and astragalo-calcaneal joint was then easily accessible. The lower end of the fibula being removed with bone forceps, and the lateral ligaments cut, the whole joint could be inspected. The synovial membrane and various foci of disease were removed. Mr. Neve thinks that, compared with the operation by lateral incision and the anterior incision recommended by Jacobson, it has the following advantages:

1. It gives good visual access to every part of the ankle-joint.
2. Also to the bones composing the joint.

3. As well as to the astragalo-calcaneal joint and upper surface of the os calcis.
4. If the astragalus requires to be excised, no incision would serve the purpose better.
5. The anterior portion of the incision may be made as a diagnostic measure before cutting the flap.
6. The structures cut can be sutured without materially interfering with the strength, utility, or vascular ability of the foot.
7. The wound drainage is dependent.

THE TREATMENT OF HYDRARTHROSIS BY PUNCTURE AND INJECTION.

DR. FALCOZ reports (*Archives Générales de Médecine*, September, 1889) the following method of treatment as having been successfully employed in the service of M. Blum, at the Hôpital Tenon, in cases of hydrarthrosis, whether due to rheumatism or to traumatism:

The diseased joint is first carefully washed with soap, then with sublimate, and in the last place with a mixture of alcohol and ether. A small trocar is used, having first been heated, washed in carbolic water, and then oiled. The joint is punctured from the outside. The synovial fluid is then drawn off and the joint is washed out with carbolic lotion 1 : 20, about 60 c.c. being injected. This fluid is drawn off, the articulation emptied, and the carbolic solution again injected precisely as before. The small opening made by the trocar is occluded by means of a little collodion and the limb is placed in a plaster dressing. At the end of two days the dressing is removed, and if a little of the fluid still remains, energetic compression is applied. It is very seldom the case that after the second dressing, and after a little massage, the limb does not resume its normal state.

Dr. Falcoz summarizes his results as follows: Of 16 hydrarthroses, 13 resulted in complete and permanent cure; 1 of the remaining 3 had an acute arthritis; 1 was treated with tincture of iodine; 1 was still under treatment.

Ten hydrarthroses were treated by simple puncture and 6 by puncture followed by antiseptic washings. One of these hydrarthroses was particularly interesting, inasmuch as the simple puncture brought no favorable result, but the patient was completely cured by puncture followed by injection of the joint.

The conclusion seems justifiable, that the treatment by puncture and injection, inefficacious in cases of acute arthritis, always succeeds in chronic hydrarthrosis. Whether the hydrarthrosis originates under the influence of rheumatism or traumatism is of little importance; the essential factor is that there should be no acute inflammation in the joint, in order that after having freed the articulation of its liquid (as of a foreign substance) the irritating properties of the carbolic acid solution may prevent its re-formation. The operation, without being in the least complicated, exacts very rigorous antiseptic precautions, neglect of which in a hydrarthrosis treated by puncture and injection, could easily transform a simple chronic hydrarthrosis into a purulent arthritis.